DOCUMENT RESUME

ED 268 781 FL 015 597

AUTHOR Rutherford, William
TITLE Grammatical Theory and L2 Acquisition: A Brief Overview.
PUB DATE 29 Dec 85
NOTE 27p.; Paper presented at the Annual Meeting of the Linguistic Society of America (Seattle, WA, December 29, 1985).
PUB TYPE Information Analyses (070) -- Speeches/Conference Papers (150)

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS Educational Research; *Grammar; *Interlanguage; Language Research; *Language Universals; *Learning Processes; *Linguistic Theory; Literature Reviews; *Second Language Learning
IDENTIFIERS *Markedness

ABSTRACT

Theories and research on second language acquisition and grammatical theory are reviewed and discussed, especially those concerning the recent interest in understanding the nature of the language-learning faculty. The review includes work in the areas of universal grammar, interlanguage, parameterization of universal grammar, second language learnability, markedness, learning differences between children and adults, other differential learner characteristics and language-processing capabilities, and typological control, and their interrelationships. Problems in research into grammatical theory are also briefly discussed. Four pages of references conclude the document. (MSE)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☒ This document has been reproduced as received from the person or organization originating it.
☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY
William Rutherford
TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

ED268781

Grammatical Theory and L2 Acquisition: A Brief Overview[1]

William Rutherford
University of Southern California

Serious research in second-language acquisition has a relatively short history by comparison with that of research in other areas of language development. L2 acquisition study would be difficult to trace back more than perhaps fifteen years. Moreover, this brief history is one that is characterized, until only two or three years ago, largely by exclusively data-driven descriptive work. That is, from the early investigation of morpheme-acquisition orders (Larsen-Freeman 1976, Dulay and Burt 1974, Bailey, Madden, and Krashen 1974) to some of the more recent resuscitation of language-transfer research considered from the perspective of pidgins[2], typology (Zobl 1982, 1984a; Rutherford 1983), hierarchies of accessibility (Gass 1979, Gass and Ard 1984), etc., the emphasis has been upon delineation of the path followed by the L2 learner in pursuit of target objectives and upon the extent to which this L2 acquisition route does or does not resemble that of the child in the acquisition of L1. It is essentially a record of research <u>in need of</u>, if not implicitly <u>in search of</u>, a theory of L2 acquisition within which to accommodate and account for the data being described.

The thrust of the above work then is largely descriptive, in that it stops short of seeking an explanation for the data patterns that have been discovered. Thus, for example, the

FL015547

morpheme-acquisition research did not address itself to the question of **why** the morpheme orders[3] should have occurred as described; language-typological research did not look for an explanation as to **why** L1 canonical word-order does not transfer in the early L2 production of planned language; research within the paradigm of classical contrastive analysis did not venture to ascertain **why** the effects of some L1 X upon some L2 Y for some category Z was not necessarily a two-way street (i.e. that there need not be the reverse effect of L1 Y upon L2 X for the same category). This summary characterization, however, is by no means intended necessarily to disparage the descriptive work in question--indeed, painstaking analysis of the interlanguage product has led to many valuable insights and has forced the revision of a number of assumptions as to how the learning of second languages proceeds. Moreover, ongoing research--e.g. Andersen (1984)--suggests that such insights have anything but dried up. And it is well to remember that not the least of the benefits to have derived therefrom is the recognition of what L2 acquisition research itself can contribute to grammatical theory.

There is a fundamental distinction to be drawn, however, between the kind of research just described and particular kinds of L2 acquisition study that have begun to emerge within the last two or three years. The difference is one that arises not so much from what constitutes the language phenomena under scrutiny as from what questions are being posed with respect to those phenomena. That is, whereas previously the principal questions to

be addressed (whether explicitly or not) had to do with the nature of the acquisition route traversed by the L2 learner in moving toward the target criterion, the questions more recently addressed have to do with the nature of a language acquisition faculty that on the one hand can compute to language constructs not present in the learner's L2 input but on the other hand more often than not falls short of the attainment of target criteria.

There are a number of recent papers that concern themselves to varying degrees with the question of how second languages come to be acquirable, some of these studies formally addressing the question at least in part from the perspective of Chomskyan UG (White 1983, 1985a,b,c; Felix 1985a,b; Clahsen 1985; Clahsen and Muysken 1984; Kean 1984; Flynn 1984; Flynn and Espinal 1985; Hilles 1985), others from the perspective of current typological research (with often considerable overlap between the two) (Zobl 1984, 1985; Hawkins 1985; Comrie 1984; Eckman 1982; Rutherford 1983; Rutherford and Altman 1985). One of the most interesting aspects of much of this work--all the more so given the diverse theoretical stances--is common (often tacit) recognition that what has come to be known as the "logical problem" of language acquisition (Hornstein and Lightfoot, 1981) applies not only to L1 acquisition but to L2 as well. The "problem" of course is the well-known one of explaining how knowledge of target grammar is acquired given its severe underdetermination in the learner's available evidence, or how the learner can "project" from the primary data to their corresponding underlying structural properties. The theoretical status of this question is of such importance that we will let it serve as something of an

organizational heuristic for discussion of the L2 acquisition research under consideration.

Not the least attractive aspect of recent serious research in L2 acquisition is the fact that we have the advancement of precise claims--claims that make predictions about the shape and development of interlanguage (IL) and that consequently may be tested. This precision can be attributed to both the typology and UG paradigms, although, as we shall see, the two may differ considerably in their theoretical assumptions. As for the methodological assumptions, claims about L2 acquisition emanating from a UG perspective are concerned largely with the effect upon IL of the parameterization concept; claims emanating from a typological perspective are given their most precise articulation in terms of implicational universals. Let us then consider what is being said by the claimants in question.

The most extensive contribution to L2 acquisition research from a UG position is to be found in a collection of recent papers by White (1983, 1985a,b,c). White, as well as others, has been attempting to develop a theory of L2 acquisition by casting the L2 learnability problem within the framework of a "parameterized UG," thereby enabling one to advance a number of interesting, testable claims. Those we will mention here have to do with markedness, the question of evidence accessible to the L2 learner, and the possibility that certain kinds of evidence may serve as "triggers" for activation or resetting of a UG parameter.

The research literature for L1 acquisition generally

supports the suggestion that in child language development unmarked features emerge prior to their marked counterparts. Moreover, this observation is not inconsistent with the findings of those looking at L1 phenomena within a UG framework. Thus the "unmarked case," par excellence, "can be understood as the child's initial hypothesis about language (in advance of any data)..." (Williams, 1981:8) and markedness claims are therefore essentially claims about the development of L1 acquisition. In transposing the same learnability question to L2 acquisition, however, White (1984) makes the interesting point that markedness theory in some cases can be expected to predict acquisition outcomes that are at variance with what an L1-derived concept of markedness would have yielded. For the L2 learner the UG condition is obviously not one wherein, as in the learning of his native language, the parameters are open and ready to be set in consequence of the learner's contact experience with the target language. Rather, parameter switches have <u>already</u> been thrown in the course of the learner's having acquired his mother tongue and the assumptions of language form carried into his L2 learning experience therefore derive from something considerably more elaborate than the child's "initial hypotheses." Recognition of these facts leads White to predict then that there will be three instances of L2 acquisition where the L2 marked phenomenon constitutes the learner's initial preference--all three predictions based upon the availability and nature of the target evidence presumed to be crucial to the learning in question. Thus, the marked option will be preferred (a) where L1 and L2 both manifest the marked version, (b) where L1 shows the marked

and L2 the unmarked, and (c) where some phenomenon occurs as marked in L2 but does not figure in L1 at all. White's model thus amounts to a claim that where the marked option is either the only one available (in L2 or L1) or is uniquely present in the learner's L1, then this evidence is sufficient to lead him directly to opt for the marked form in L2 as his first hypothesis. The truly critical test then would be situation (b)--where the phenomenon is marked in L1 and unmarked in L2.

There has hardly yet been enough time to subject these hypotheses to serious testing and, indeed, for what has so far been done the outcome is tentative at best. The most promising evidence to date emerges from White's experiments concerning subjacency considered as a UG parameter to be reset in the course of L2 acquisition where there is a difference in bounding nodes for source and target language. Thus, if the null (unmarked) hypothesis is that all nodes are bounding, if the bounding nodes for subjacency in (target) English are NP, S, and S-bar, and if the bounding nodes in (L1) French and Spanish are NP and S-bar, then the French or Spanish learner's assumption that S is not a bounding node in English would represent a preference on his part for the marked over the unmarked option vis-à-vis subjacency. This is what White's experimental results tend to show, although she is the first to point out that the data are by no means strongly conclusive.

As for relevant earlier studies without explicit appeal to a parameterized UG, the only group of research findings seemingly applicable to this question--viz. the effect of preposition

stranding upon IL where English is either source or target language--is also inconclusive (Adjémian and Liceras 1984, Mazurkewich 1984, Liceras 1983). We will later return to White's markedness prediction in the context of acquisition claims advanced from a typological perspective.

Again, the driving force in these approaches to L2 acquisition is the question of learnability given the impoverishment of the crucial data to which the learner has access. The plausibility of his learning task is enhanced to the extent that the range of testable hypotheses about L2 is apriori circumscribed--hence the assumption of continued accessibility of UG principles to adult L2 acquirers. Learnability would be further enhanced were there in operation a kind of chain effect such that the force of UG principles would account for the learning of not just some particular L2 property but rather a cluster of related properties. There is some evidence that this is precisely what happens, at least with regard to the PRO-drop parameter.

Within the past year, research of Hilles (1985),[4] based in part on claims advanced in Hyams (1983), has attempted to gain insight into the extent to which some aspects of English IL restructuring by Spanish-speaking learners could be attributed to the resetting of PRO-drop from [+PD] to [-PD], triggered by the initial acquisition of several concomitant properties--viz. impersonal <u>it</u> and a lexically realized AUX. The impetus for such a hypothesis is provided by the analysis of INFL as the head of S and thus one of the principal sources of the distinctions to be drawn between PRO-drop and non-PRO-drop languages. That is, since

PRO may not be governed, the realization of INFL must be such that resulting domination of PRO + lexically-empty AUX or of a non-PRO element + lexically-filled AUX are mutually exclusive. Consequently, the Spanish L1 learner's acquisition of L2 English modality, manifested in the IL emergence of a lexically realized AUX, would necessarily have the result of "forcing PRO out of INFL" and in effect serving to facilitate (along with the acquisition of impersonal it) the learner's restructuring of his English IL as a non-PRO-drop language. This is essentially the analysis that Hilles' research confirms, though it depends crucially upon assumptions that IL can be analysed in terms of the phrase structure configurations and dominance relations in question, which, as Zobl (1985) points out, is far from established. The usual additional cautionary note here would be that it represents only one study, covering only one learning situation, and involving only six subjects.

This concept of grammatically-related properties interacting vis-à-vis a parameterized UG has also motivated research on the influence upon IL of L1/L2 branching direction, as treated in a number of recent papers by Flynn (1984; Flynn and Espinal, 1985; inter alia). The relationship in question is that between the "principal branching direction," as specified within X-bar theory, and direction of anaphora (i.e. forward or backward). Flynn draws upon the results of her empirical studies to buttress essentially three claims, one specifically to do with L2 acquisition and the other two concerning the status of UG itself. The acquisitional claim is that the interplay of L1/L2 settings

for a posited "head-initial/head-final parameter," will affect the length of time required for emergence in IL of perceived L2 anaphoric relations across complex sentences, thus suggesting learner sensibility to L2 structural configuration. The second claim--motivated by another look at "head-direction" (the terms is Flynn's) and anaphora with an L1 whose adjunct-head analysis is disharmonic with its SVO canonical order, viz. Chinese--is that word order and head direction are separate parameters. The third claim is the promulgation of parameterization itself as an essential part of the theory of Universal Grammar, and of a parameterized UG as a central component in any theory of L2 acquisition.

While these efforts to demonstrate that L2 acquisition research can make significant contributions to the theory of a parameterized UG are to be applauded--and we will return to this theme presently--other aspects of this ostensible symbiosis turn out to be problematical. It might be argued that such problems as there are stem from one primary assumption that theorists are required to make (or at least often <u>do</u> make) in attempting to explain the L2 acquisition event from a UG theoretical position. And that is that the learner--ever engaged in sifting incoming data, testing hypotheses, re-setting parameters, and restructuring his IL--is directed toward attainment of target criteria. This assumption would of course achieve instant and unquestioned theoretical status were it the case that L2 learners, like L1 learners, actually <u>attained</u> the target criterion. That more often than not this does <u>not</u> happen in L2 acquisition remains as yet unexplained in most seriously

propounded theories of how second languages are acquired, with several notable exceptions to be discussed presently. Also lacking an explanation so far is the fact that L2 acquisition often fossilizes to the extent that the acquired IL grammar bears to the ultimate target grammar no relation that researchers have succeeded in specifying with either formality or even consistency. It would perhaps not be out of place to label this an additional "logical problem" of L2 acquisition.

The problem of explaining the "partial-outcome" characteristic (Davies, 1984) of L2 acquisition is attacked head on in a very recent paper by Felix (1985a). Whereas essentially the only previous serious (but largely unsuccessful) attempts to explain this phenomenon attribute it to influences definable within linguistic theory (e.g. L1 transfer, decay of the LAD, etc.), it is Felix's contribution (along with Clahsen's and Muysken's) to attempt an explanation that recognizes what other mental resources are uniquely at the disposal of adult learners--viz. learning strategies.[5] Citing evidence that children and adults go about the business of learning languages in very different ways--the most compelling evidence being the "unstructuredness" of early L2 vs. L1 syntax--Felix concludes that the crucial difference resides in the separate faculties that the two groups bring to bear upon the learning experience. For children it is UG; for adults it is UG in competition with late-acquired general principles of a problem-solving nature. Moreover, it is the problem-solving heuristic that turns out to be ill-suited to the task to which adults ineluctably put it--

namely, learning a language--and that thus leads to the almost inevitable partial outcome or "failure of ultimate attainment" that so well characterizes post-pubescent language acquisition. Felix is the first, however, to recognize the need to specify the actual structure of the problem-solving mechanism (however one wishes to call it) and with no less precision than the specification of UG itself. Finally, it is worth noting that whereas researchers to date have taken great pains to demonstrate that IL's obey the same constraints as primary languages (i.e. that they are both natural languages), we have here some small but nonetheless important evidence that early IL's are perhaps not natural languages after all--that is, that their rule systems, such as they are, do not fall out from the interplay of UG principles as they are presently formulated. We are thus led to think the unthinkable--always a healthy sign.

Another problem arising from the attempted incorporation of UG into an explanatory model of L2 acquisition has to do with the L2 learners' differential accessibilities to the UG principle itself. The already discussed research findings of White, Flynn, and Hilles are claimed to be evidence for the accessibility of a parameterized UG. Additional evidence is offered by Felix (1985b) in the form of grammaticality judgements rendered by L1 German learners of L2 English where ungrammaticality was correctly identified by the learner in those crucial instances in which the contributing factor was a UG violation--a learner judgement whose explanation on any grounds other than prior "knowledge" of the principle in question is easily ruled out. However, Felix draws an important distinction between the existence of universal

principles and "the effects of universal principles on idiosyncratic structures in different languages" (p.4). Such a distinction would be one possible conclusion to draw from the results of empirical research revealing some variety in the rate of correct learner response for a given principle at work in diverse construction types. As Felix points out, failure to demonstrate empirically that there is uniformity for a learner's intuitions about a range of constructions manifesting a given UG principle might be taken as evidence "that the idiosyncratic properties of a given language are much more crucial than the relevant UG principles in determining the full range of correct intuitions for a certain set of constructions" (p.16). One could add that it might also be taken as evidence that the ostensible manifestation through such constructions of the UG principle itself can be called into question, as has already been done (e.g. Aitcheson, 1985).

Although the researchers whose work has so far been cited are in essential agreement that the UG concept is a valid one and that the "logical problem" of L1 acquisition is no less a problem for the acquisition of L2, there is some <u>dis</u>agreement among them as to the precise role that UG plays in L2 acquisition itself. What is at issue here is the following: Are UG principles--which are activated in the L2 learner presumably in some as yet unspecified order (but see Zobl, 1985) and whose parameter settings bear the L1 predetermination--in themselves sufficient to operate directly upon incoming L2 data for giving shape to the learner's IL? Or is the role of UG rather the more indirect one

of serving to constrain the range of hypotheses about L2 grammar that the learner may reasonably entertain? Felix is a proponent of the latter theory, while Kean would represent the former.

For Kean there is a very straightforward relationship to be noted between the acquisition of L1 and L2, the key to which is apparent in what it is that the learner himself contributes to the learning task. In L1 that "contribution" is UG in its initial, open-parameter state; in L2 it is an L1-parameterized UG. Language transfer for Kean thus achieves a broad and quite original status, in that it embraces both L1 and L2. That is, whereas language transfer in L2 is the learner's application of his L1 parameter settings, language transfer in L1 is the null hypothesis in parameter setting--in other words the "transfer" of UG itself. Thus, in Kean's words, "the second language learner is as good an evaluator of the data as the child and only differs from the child in virtue of the explicit linguistic assumptions that he or she brings to the task of learning" (p.14). The crucial differences to be noted relative to attainment of target objectives in the two learning domains--viz. L1 completion vs. L2 "partial outcome"--are to be attributed to the highly idiosyncratic prior assumptions carried into adult L2 learning in contrast to child L1. The recasting of these assumptions about L2 (i.e. transfer)--assumptions whose L1 provenience often imparts to them a quite "exotic" character--requires not only that the L2 learner have access to more complex positive evidence that is often unavailable to him but that when it is available its incorporation in the L2 learner's IL often forces a more pervasive and complicated (hence only partially achieved)

restructuring of his IL.[6] The inevitable result of these L1/L2 contrasting learner assumptions together with contrasting requirements for positive evidence is therefore full success in the attainment of L1 but only partial success in the attainment of L2. There is some doubt, however, as to whether these claims are enough to account for the observed differential successes in question, a topic to which we return presently.

Disagreement as to the precise role of UG in L2 notwithstanding, none of the work discussed so far denies that UG is fundamentally relevant to L2 acquisition research. All the more important then are some very recent claims that call into question this very relevance. Results of investigation into the L2 acquisition of German word order (Clahsen and Muysken, 1984) and of the acquisition of agreement marking in German L1 and adult L2 (Clahsen, 1985) yield the following interesting observations: (1) L1 learners posit a verb-final sentence structure with verb-fronting then developing apace with the onset of agreement marking; (2) L2 learners hypothesize canonical SVO from the start, with verb movement complexifying the interim grammars and entirely unrelated to the parallel development of agreement marking. These findings, moreover, are offered as evidence for the differential accessibility to UG in L1 vs. adult L2 acquisition, since the interim L2 grammars appear in contravention of UG principles whereas L1 grammars are always consistent with them. Clahsen (1985) therefore claims that it is only child L1 learning that is guided by principles of UG; adult L2 learning is the result instead of "inductive learning

strategies based on general information processing and problem-solving principles" (p.32).

Clahsen ventures a few guesses as to why L2 learners might not have access in adulthood to the language acquisition device (LAD) activated in childhood--guesses having to do with disappearance of the LAD in the course of maturation, with the LAD itself as experiencing growth through L1 development and whose final state is coterminous with native-speaker competence, and (more plausibly) with an LAD whose effect is overridden in adulthood by Piagetian learning strategies, a possibility raised earlier by Felix (1985). In addition to the intuitive appeal of an explanation that supposes UG principles to be available in adulthood but somehow overshadowed by other operating principles, one presumably would need UG to address as well the still-present logical problem of L2 acquisition. There would at present seem to be no way to account for the familiar "poverty of stimulus" factor, were UG not considered still in force for language learning in adulthood.

The question of whether or not L1 learning and L2 learning have recourse to the same mental structures has been approached also from a language typological perspective in several recent papers by Zobl (1984, 1985). In grappling with the L2 learnability problem Zobl (1985) raises an important question of central concern (also posed in the earlier paper of Felix, 1984)--namely, what are the characteristics of the L2 learning procedure such that otherwise ubiquitous L2 data come to countermand an L1-inspired IL only at fixed points in the learner's development? This is tantamount to asking for a formal

account of the IL restructuring that takes place at those intervals, or a specification of the operation popularly referred to as "stage transition" and usually left at that. Zobl pursues the inquiry in an effort to determine the actual source of the effect upon IL of contrasting L1 and L2 typologies. His proposed answer is the demands upon the L2 learner made by the learner's stage-differential abilities to <u>parse</u> the L2 of his input. Invocation of the learner's developing computational abilities (i.e. his L2 parser) effectively serves the need to explain why, of the three recognized typological frameworks--word order, null-subject, topic/subject prominence--it is only L1 word order that does not impinge upon IL (Rutherford, 1983). In Zobl's words, "the parsing demands inherent in data which constitute evidence for the word-order type are within the limits of beginning learners...[and] therefore...a contrasting word-order type should be highly attainable" (p.11).

While there is a great deal that seems right about a differentiation of child and adult learning in terms of language-processing capacities such as parsing, it is not yet clear how the operation of the adult learner's parser will explain the all-important partial-outcome feature of adult language-learning. Partial outcomes are not limited, for example, only to learning situations in which L1 and L2 contrast along the typological parameters that make the greater computational demands upon the learner--viz. null-subject and topic/subject prominence; partial outcomes seem to characterize learning situations just as well in which there is <u>near maximal</u> L1/L2 typological alignmment

(e.g. English and French). Yet, if one proposes to resolve the dilemma by, for example, locating the parsing principles within a larger set of "operating principles" or problem-solving heuristics--which, as we have seen, have been proposed as partial-outcome explanations--then one would have to explain further how effective disposition of something as fundamental to language use as a parser could be deployed in the service of a problem-solving strategy that, as Felix (1985a) claims, is ill-suited to language learning.

In another and slightly different approach to the learnability question, Zobl (1984) offers a number of specific claims as to the transferability of L1 phenomena admitting of head-and-adjunct serialization and draws theoretical support for this from the concept of "typological control." This is defined by him as "a theoretical construct which proposes that typological parameters are constituted by a network of attributes which may be tightly controled or loosely controled by the parameter" (p.i). "Control" then refers to the extent to which the ripple effects of parameter setting reach into the parameter's network of ancillary properties, what is typologically most natural (and hence least marked) being a network which is "in sync," as it were--manifesting cross-categorial harmony (Hawkins, 1982). Zobl theorizes that not only can degree of L2 learner success within these L2 target typological domains be directly accounted for in terms of the "control" concept but that only learner violation within areas of tight control will have a bearing on accessibility of L1 mental structures (i.e. presumably, UG). Furthermore, later L2

acquisition (and also fossilization) of target phenomena under loose control is claimed to reflect not so much learning "difficulty" as relegation to lower learning priority of target constructs with less "typological decidability." Learner difficulty within areas of tight control are therefore predicted to emerge, for example, where there is L2 typological "doubling"--e.g. in English pre- and post-head genitives (*friend for her) or in disharmonic SOV word order with French object pronominalization (*je vois le).[7]

Typological control can be interpreted as a set of implicational universals of the sort first articulated in Greenberg (1966) and since refined in Hawkins (1983), inter alia, and the L2 claims that Zobl's model makes are very similar to those advanced in another and very recent paper of Hawkins (1985). We will briefly summarize these claims and then show how they are at considerable variance with what White's paramaterized UG model predicts for L2 learning under the same set of conditions.

If IL obeys the same constraints as primary languages, then the above implicational relations can be expected to play a role in the shaping of ILs as well. Building upon Eckman's (1984) implicational predictions for IL phonology, Hawkins proposes the implicational statement, "if P then Q", as a constraint upon the formation of IL grammars. Predicted as possible occurring phenomena, therefore, would be (1) P and Q, (2) not P and Q, (3) not P and not Q, but (4) not "P and not Q." That is, if P and Q values are cited as, for example, SV inversion in wh-questions

and SV inversion in yes/no-questions respectively, then emergence of inversion in IL of yes/no-questions will either precede, or occur simultaneously with, inversion of wh-questions but will not follow it (which would thereby constitute an instance of universally non-occurring "P and not Q").

Notice then that what is being claimed amounts also to a claim about the effect of markedness relations in L2 acquisition, since wherever implicational statements can be interpreted as claims about markedness P will assume the marked value, Q the unmarked. Thus, where L1 has "not P and not Q" and L2 has "P and Q," the predicted Il sequence of acquisition in terms of implicational universals will be either Q before P or Q and P together but not P before Q--in other words, not the marked value before the unmarked. This is exactly contrary to the already discussed claim advanced from a UG perspective by White (1983), where the marked value would initially appear in IL if no L2 evidence is present to override it.[8] White's position would appear to gain strength, however, by having set the problem within the learnability framework.[9]

What is of special importance with such competing claims is not so much that one may be right and the other wrong but that theories of L2 acquisition are being refined to the extent that precise predictions about identical areas of IL development make it possible to compare divergent theories on a principled basis. Furthermore, inasmuch as these theories are not ad hoc statements relevant only to the realm of L2 acquisition but rather derive from theories of the nature of language itself, the contribution of L2 acquisition research to these broadest of all linguistic

concerns assumes growing significance.

Having said this, however, we must also add that grammatical theory in the service of a rigorous investigation into L2 acquisition is not without its problems. Problems there are--and ones having to do as much with the recalcitrance of L2 data as with our ignorance in important domains of formal grammatical organization. First of all (and despite strong arguments to the contrary [Kean 1984]), for insight into the crucial phenomenon of "failure of ultimate attainment" we will likely have to look to sources other than grammatical theory--perhaps to "operating principles" such as those so far only vaguely delineated in the work of Felix and of Clahsen. There is also the question raised by Clahsen as to whether early interlanguages are amenable to any structural analysis at all--that is, whether such "structure" can be the product of any set of formal operations falling out from theories of grammar as presently constituted. Furthermore, to what extent can L2 acquisition provide tests for current formulations of UG principles (e.g. subjacency) whose manifestation requires instances of relatively sophisticated language deployment, i.e. embedding and extraction (as recognized by both White and Zobl)? Finally, it is well known that much work remains to be done to clarify and refine the UG notion of "parameter" itself before a theory of a "parameterized UG" can with any kind of confidence be brought to bear upon the problems of IL syntactic development. We thus have much to look forward to.

NOTES

1. This paper was presented as part of the "Symposium on Second Language Acquisition Theory and Linguistic Theory" at the annual meeting of the Linguistic Society of America, December 29, 1985. A somewhat different earlier version was presented at the Working Conference on Linguistic Theory and Second Language Acquisition, M.I.T., October 27, 1985.

2. See, for example, the papers in Andersen (1983).

3. The supposed significance of such orders has recently been seriously questioned by more than one L2 researcher.

4. White (1985d) independently makes the same claim.

5. Cf. also Muysken's (1982) "general cognitive capacities."

6. Kean's account would thus seem, at least superficially, not to be incompatible with either Bialystok's (1982) notions of "re-analysis" or Adjémian's (1976) notions of IL "permeability."

7. These IL examples are not Zobl's citations.

8. The occurrence of preposition-stranding with anglophone learners of L2 French--*Qui as-tu donné le livre à?--is offered by White as a possible example, with the recognition that a lot of empirical research is needed for verification in this area. (For a discussion of Universal Grammar and preposition-stranding with L2 Dutch and English, see van Buren and Sharwood Smith 1985.)

9. Zobl (1985) also points this out.

REFERENCES

Adjémian, C. 1976. On the nature of interlanguage systems. Language Learning 26:297-320.

Adjémian, C., and J. Liceras. 1983. Accounting for adult acquisition of relative clauses: universal grammar, L1, and structuring the intake. In Eckman, et al (1983).

Aitcheson, J. 1985. All paths lead to the mental lexicon. Paper presented at the Conference on Linguistic Theory and Second Language Acquisition, M.I.T.

Andersen, R., ed. 1983. Pidginization and Creolization as Language Acquisition. Rowley, Mass.: Newbury House.

Andersen, R., ed. 1984. Second Languages: A Cross-Linguistic Perspective. Rowley, Mass.: Newbury House.

Bailey, N., C. Madden, and S. Krashen. 1874. Is there a "natural sequence" in adult second language learning? Language Learning 24:235-243

Bialystok, E. 1982. On the relationship between knowing and using linguistic forms. Applied Linguistics 3:181-206

Clahsen, H. 1985. Parameterized grammtical theory and language acquisition: a study of the acquisition of verb placement and inflection by children and adults. Paper presented at the Conference on Linguistic Theory and Second Language Acquisition, M.I.T.

Comrie, B. 1984. Why linguists need language acquirers. In Rutherford (ed.) 1984.

Davies, A. 1984. Introduction. In A. Davies, C. Criper, and A. Howatt (eds.), Interlanguage. Edinburgh: Edinburgh

University Press.

Dulay, H., and M. Burt. 1974. Natural sequences in child second language acquisition. Language Leaning 24:37-53

Eckman, F. 1984. Universals, typologies, and interlanguage. In Rutherford (ed.) 1984.

Eckman, F., L. Bell, and D. Nelson (eds.). 1983. Universals of Second Language Acquisition. Rowley, Mass.: Newbury House.

Felix, S. 1984. Maturational aspects of universal grammar. In A. Davies, C. Criper, and A. Howatt (eds.), Interlanguage. Edinburgh: Edinburgh University Press.

Felix, S. 1985a. More evidence on competing cognitive systems. Second Language Research 1:47-72

Felix, S. 1985b. UG-generated knowledge in adult second language acquisition. Manuscript.

Flynn, S. 1984. A universal in L2 acquisition based on a PBD typology. In F. Eckman, L. Bell, and D. Nelson (eds.), Universals of Second Language Acquisition. Rowley, Mass.: Newbury House.

Flynn, S., and I. Espinal. 1985. Head-initial/head-final parameter in adult Chinese L2 acquisition of English. Manuscript.

Gass, S. 1979. Language transfer and universal grammatical relations. Language Learning 29:327-344.

Gass, S., and J. Ard. 1984. Second language acquisition and the ontology of language universals. In Rutherford (ed.) 1984.

Greenberg, J. (ed). 1966. Universals of Language. Second Edition. Cambridge: MIT Press.

Hawkins, J. 1983. Word Order Universals. New York: Academic

Press.

Hawkins, J. 1985. Language universals in relation to acquisition and change: a tribute to Roman Jakobson. Paper presented at the First International Roman Jakobson Conference, New York.

Hilles, S. Interlanguage and the PRO-drop parameter. Manuscript.

Hornstein, N., and D. Lightfoot, eds. 1981. Explanation in Linguistics. London: Longman.

Hyams, N. 1983. The acquisition of parameterized grammars. Unpublished doctoral dissertation. City University New York.

Kean, M.-L. 1984. Second language acquisition and grammatical theory: a matter of projection and marking. Manuscript

Larsen-Freeman, D. 1976. An explanation for the morpheme acquisition order of second language learners. Language Learning 26:125-134

Liceras, J. 1983. Markedness, contrastive analysis, and the acquisition of Spanish syntax by English speakers. Ph.D. thesis, University of Toronto.

Mazurkewich, I. 1983. Dative questions and markedness. In Eckman, et al (1983).

Rutherford, W. 1983. Language typology and language transfer. In S. Gass and L. Selinker (eds.), Language Transfer in Language Learning. Rowley, Mass.: Newbury House.

Rutherford, W., ed. 1984. Language Universals and Second Language Acquisition. Amsterdam: John Benjamins.

Rutherford, W., and R. Altman. 1985. Discourse competence in L2 acquisition: word order. Manuscript.

van Buren, P., and M. Sharwood Smith. 1985. The acquisition of

preposition-stranding by second language learners and parametric variation. Second Language Research 1:18-46

White, L. 1983. Markedness and parameter setting: some implications for a theory of adult second language acquisition. McGill Journal of Linguistics 1:1-21

White, L. 1985a. The PRO-drop parameter in adult second language acquisition. Language Learning 35:47-62

White, L. 1985b. Is there a logical problem of second language acquisition? TESL Canada 2:29-41

White, L. 1985c. The acquisition of parameterized grammars: subjacency in second language acquisition. Second Language Research 1:1-17

White, L. 1985d. Against comprehensible input: the input hypothesis and the development of L2 competence. Unpublished manuscript.

Williams, E. 1981. Language acquisition, markedness, and phrase structure. In S. Tavakolian (ed.), Language Acquisition and Linguistic Theory. Cambridge: MIT Press.

Zobl, H. 1982. A direction for contrastive analysis: the comparative study of developmental sequences. TESOL Quarterly 16:169-183.

Zobl, H. 1984a. Uniformity and source-language variation across developmental continua. In Rutherford (ed.) 1984.

Zobl, H. 1984b. Typological control in interlanguage. Manuscript.

Zobl, H. 1985. A functional approach to the attainability of typological targets in L2 acquisition. Manuscript.